Morice Forest District

ptions Report

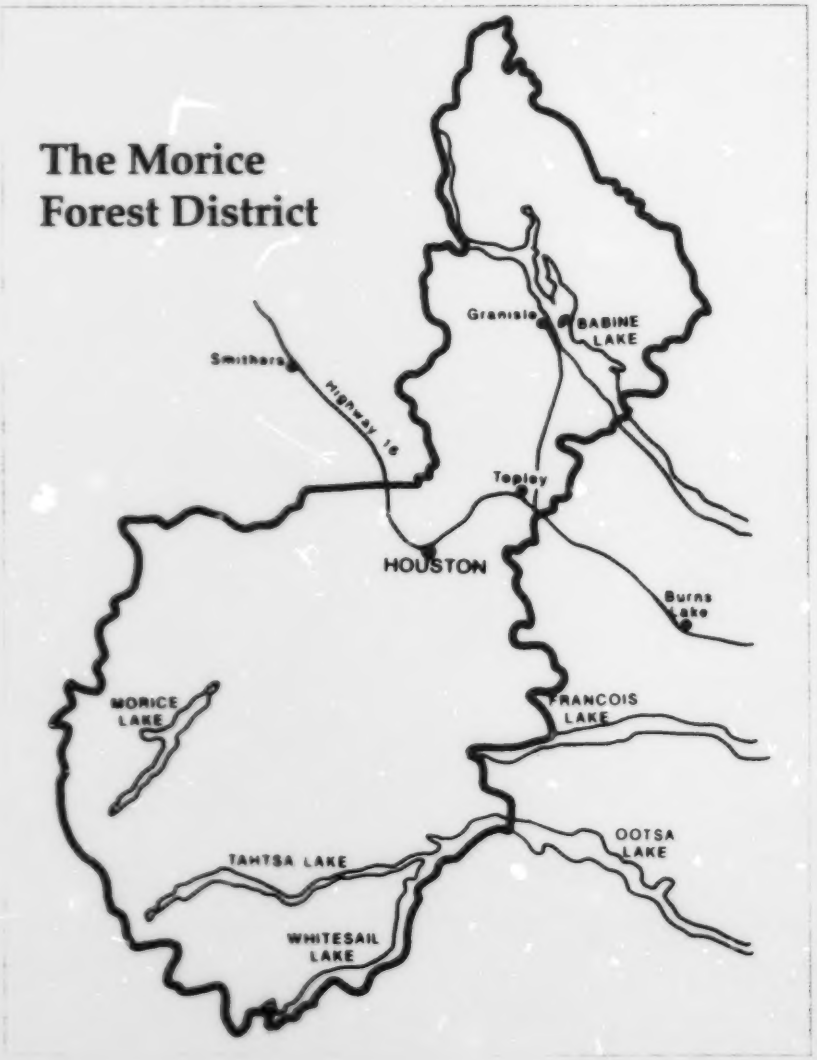
This Options Report is part of the process through which the Forest Service fulfils its mandate to manage British Columbia's forests. The purpose of the Options Report is to outline the resource issues and management options for the Morice Forest District and to invite public response. Public opinion on the management options will help the Forest Service to determine the broad management objectives for public forest lands in the Morice District.

The Morice Forest District surrounds the town of Houston in the north central interior of British Columbia. The total area of the District is about 1.5 million hectares (5,790 square miles).

Roughly four percent of the total area is either leased, private or under reserve. The remainder is Crown land administered by the Forest Service.

In addition to Houston, the communities of Granisle and Topley, as well as a substantial rural population along Highway 16 and in the François Lake area, fall within the Morice District.

The area's economic activities include forestry, mining, ranching, tourism, trapping and various service industries. The forest industry predominates the local economy. As a result, managing the timber supply is a resource management priority.



Planning Resource Use

Government policy requires that district forest management strategies be reviewed approximately every five years to keep pace with changing circumstances and priorities. Initial forest management strategies were developed in the Morice Forest District in 1981. In 1986, new issues and planning directions were identified and reviewed in a public meeting and work began on an Options Report to present the management alternatives. However, due to other forestry issues and priorities at the time, this process was never completed.

Since 1986, forest policies and issues have undergone substantial change and the planning directions identified for the Morice Forest District require updating. With the dramatic increase in public interest, forest management planning must now place greater emphasis on public involvement and the management of public forests for a wide range of forest resources, including timber, water, fisheries, wildlife, recreation, soils and aesthetics. Planning processes are evolving to meet these wider requirements, but to bridge this development period and update the existing management guidelines, an Interim Resource Management Plan is proposed.

This Options Report outlines a number of land base commitments and resource management options on which public opinion is being sought. Following public review and feedback, the Provincial Chief Forester will select a management direction for the Morice Forest District and order the preparation of a draft Interim Resource Management Plan. The draft plan will outline the management programs and actions necessary to carry out the selected management direction. Following another round of public review and comment, the Interim Resource Management Plan will be finalized and approved by the Chief Forester.

The Interim Resource Management Plan will guide forest management while a full plan is being developed. The full resource planning process is scheduled to begin in 1991 and take two to three years to complete.

Section 4 of the Ministry of Forests Act requires that forests be managed to:

- *encourage maximum productivity of forest resources;*
- *manage, protect and conserve forest resources having regard to their short and long term social and economic benefits;*
- *plan forest uses so that they are coordinated and integrated in consultation and cooperation with other government agencies, resource users and the public;*
- *encourage a vigorous, efficient and world competitive timber processing industry;*
- *assert the financial interests of the government in a systematic and equitable manner.*

This Options Report outlines the management options being considered in the Morice Forest District. Further technical detail can be found in the Morice Forest District Options Report Technical Supplement, available from the Morice Forest District.

Public comment on this Options Report is encouraged. Written comments should be sent by February 15th, 1991 to:

District Manager
Morice Forest District
Bag 2000
Houston, B.C.
V0J 1Z0

Forest Management Issues

As you review the issues outlined in this section, you might consider the following questions.

- *Does this discussion cover the forest management issues as you see them?*
- *Are there issues or concerns which have not been addressed?*
- *Keeping in mind the full range of forest resource values and the fact that in some cases these values are complementary (e.g. protection of wildlife habitat and scenic landscapes), while in other cases they conflict (e.g. wilderness recreation and timber production), what mix of resource uses would you like to see for the Morice Forest District?*

The Crown forests of the Morice Forest District are a public resource with many values. Among these are soils and growing space for plants (including timber), habitat for wildlife, forage for cattle, a source of water for fish habitat and human use, recreation, tourism and scenic viewing opportunities.

The Forest Service is responsible for setting production targets and preparing management plans for timber, range and recreation resources. In addition, the *Forest Act* requires that the management strategies for resources managed by other agencies (e.g. fish, wildlife, water and tourism) be integrated in the Forest Service planning process.

Integrated resource management is based on the premise that overall benefits to society can be increased by a judicious mix of forest resource uses. To achieve integrated management, forestry plans are referred to the various resource agencies, and resource issues and priorities are discussed with the agencies, resource users and the public. In complex situations, agency staff, resource users and public interest representatives are invited to participate in local resource planning exercises.

When the Morice Forest District last reviewed its management direction in 1986, the management issues focused on timber supply and silviculture. While these remain important in the Morice District, additional issues of land management and forest practices also need to be addressed. The major resources and issues currently being considered in the Morice Forest District are biological diversity, natural and protected areas, tourism and landscapes, and the management of timber supply, range and recreation. These issues were identified by the Forest Service in consultation with the public and other government agencies.

Biological Diversity

Forest planning has, for many years, included the management of fish and wildlife habitat. Increased public interest in the environment and the science of ecology has extended forest planning to include a diversity of plant and animal species. Conserving biological diversity (or biodiversity) has recently become an important forest management issue in British Columbia.

Biodiversity is the full variety of living plants and animals that exist in an unmanaged ecosystem. There are a number of aspects to biodiversity. *Genetic diversity* involves the variety of individuals within a species (e.g. tall versus short people). *Species diversity* includes the variety and abundance of different species. *Ecosystem, or landscape, diversity* involves the variety and distribution of ecosystems across the landscape (e.g. forests, marshes, lakes). *Functional biodiversity* is an ecological concept relating to the variety of ways that living things interact with each other and their physical environment.

The Morice District supports a number of resource uses which rely on the maintenance of a diversity of habitats. These include hunting, fishing, wildlife viewing, trapping and guide outfitting.

A number of management strategies can be employed to conserve biodiversity while enabling development. For instance:

- fairly large natural areas may be designated as parks or other reserves which control human impacts
- special status (or treatment) may be applied to rare or endangered species and to special or rare ecosystems
- human activities on the broader land base may be planned and controlled so as to maintain a level of biodiversity across the entire landscape.

Harvesting and forest management activities can also be planned and scheduled to meet biodiversity objectives. Harvesting can be planned to provide a mosaic of forest types and ages across the landscape. Site preparation and regeneration strategies can also be adjusted to conserve a measure of diversity and habitat quality within harvested areas.

The forest management activities implied in each of the management options presented in this report will conserve biodiversity to varying degrees by maintaining a range of forest types and ages. It is assumed that such measures will result in the maintenance of important fish and wildlife habitats. While conserving biodiversity is a forest management goal, the Forest Service also needs a direct indication from citizens regarding the importance of conserving biodiversity compared to other forest management goals.

Please consider the following questions.

- *In comparison to other forest resource issues, how would you rank the conservation of biodiversity?*
- *To what extent are you willing to accept the costs (such as reduced timber harvesting) related to the conservation of biodiversity?*

Please consider the following questions.

- *In consideration of other management values (such as timber production and mineral development), do you support the establishment of natural reserves?*
- *How much of the Morice Forest District should be managed as natural areas?*
- *Which of the four example candidate areas would you like to see managed as a natural area(s)? Are there other areas which should be considered?*

Natural and Protected Areas

The management of Crown forest lands for natural values, and the protection of areas in parks or wilderness reserves, are important land use issues in the Morice Forest District.

The Forest Service can manage Crown land as "natural areas" to achieve the management directions indicated by interest groups and local communities. The designation of Provincial Parks or Wilderness Areas requires a Provincial Government Order-in-Council.

For this reason, the Options Report is an important first step in determining the extent to which the Morice Forest District should be managed for natural values and in identifying the key areas where development should be subject to specified constraints, or otherwise restricted. This does not preclude the eventual designation of parks or wilderness reserves, but enables the development of management strategies for recreation and natural values in the meantime. If natural areas are pursued, a detailed planning study will be required to evaluate boundary options and public discussion will be encouraged to provide input to final decisions.

A number of areas in the Morice Forest District, mainly in the southwest, have a combination of natural attributes which may warrant their management for recreation and associated natural values. Four areas are presented here as example candidate natural areas. These examples were selected from the Forest Service's preliminary evaluation of possible wilderness areas in the Morice District. Adjacent areas (shown on the map) could also be considered if large natural areas are a management objective.

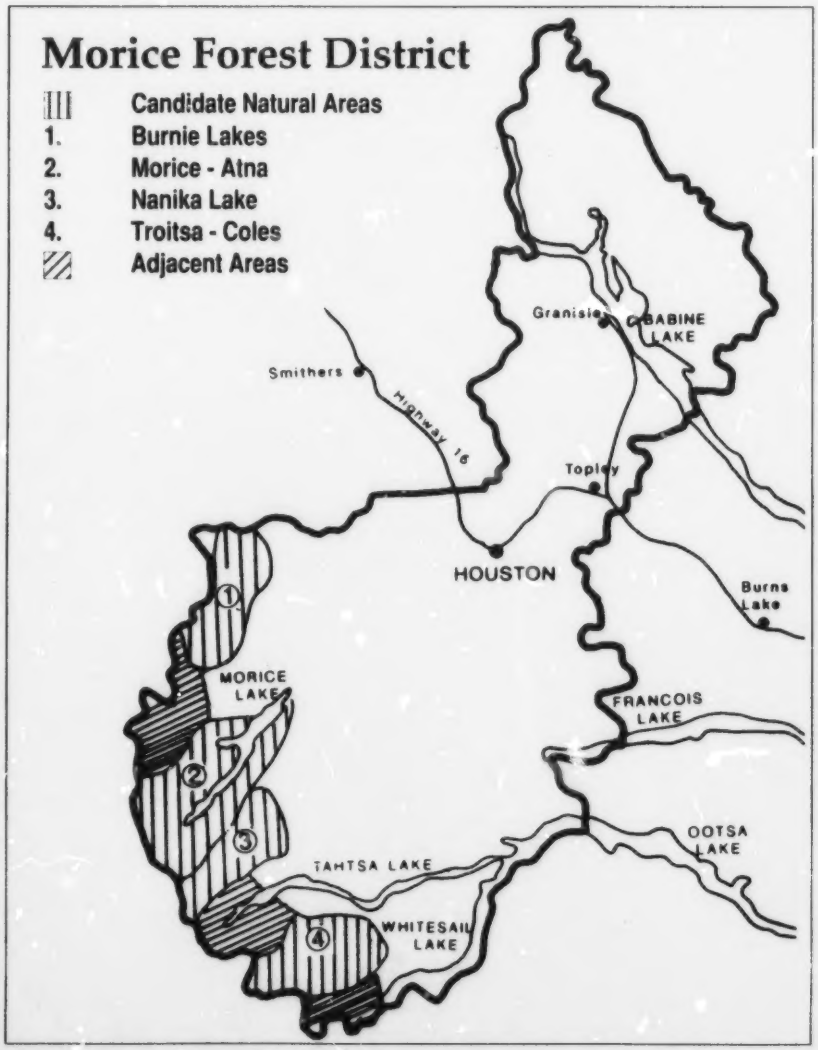
Burnie Lakes

The Burnie Lakes area contains two very attractive lakes set below the rugged Howson Mountains. The lakes provide good fishing, boating and camping, and the surrounding mountains offer excellent hiking and climbing opportunities. A diverse set of ecosystems is contained in this unit, ranging from valley bottom to mountain peaks. The total area is 24 649 hectares. Approximately 6 900 hectares and 2.3 million cubic metres of potentially harvestable timber is found in the valley, and there has been some interest in the mineral potential of this area. The exploration and development of minerals would

not be prevented by a forestry land management decision. The Burnie Lakes area is also being considered as a possible Provincial Park by the Ministry of Parks.

Morice - Atna

The Morice - Atna area includes the slopes surrounding Morice Lake to the west of Nanika River and the Atna valley. The area is very scenic and provides good boating and back-country recreation opportunities. The total area is 77 291 hectares. It contains 4 300 hectares and 1.4 million cubic metres of harvestable timber. There has also been considerable mineral exploration in this area.



Nanika Lake

The Nanika Lake area includes the mountains surrounding Nanika Lake. Excellent canoeing, fishing and hunting are found in this area, and the surrounding mountains provide good hiking opportunities. The total area is 38 807 hectares of which about 3 200 ha (representing 0.9 million cubic metres of timber) are potentially harvestable. Mineral potential is also an issue in this area.

Troitsa - Coles Lakes

The Troitsa - Coles Lakes area is located south of Tahtsa Reach. Features include excellent wildlife habitat and back-country recreation opportunities. This area was originally within Tweedsmuir Provincial Park. The total area is 42 605 hectares including about 5 300 hectares and 1.7 million cubic metres of harvestable timber. Mineral potential is again an issue.

Please consider the following questions.

- *How much emphasis, relative to other management goals, should be placed on managing for tourism and landscape values?*
- *To what extent would you be willing to see timber production and forestry employment drop to maintain landscape and tourism values?*

Landscapes and Tourism

Scenic forest landscapes are an important public resource. Public viewing enjoyment and tourism values are closely linked to scenic landscapes. Highway travel, local back-road and adventure tourism are growing factors in the economy of the Morice Forest District.

Logging and other developments are often viewed as detrimental to scenic values. To maintain public viewing enjoyment and tourism values in the Morice District, landscape management guidelines are required for the main travel corridors and special feature areas. The District has started to develop guidelines for a number of areas including Highway 16, the major lakes and the Morice River Corridor. Additional work is required to integrate these concerns with other resource uses.

Please consider the following questions.

- *In comparison to other management values, how would you rank range management in the Morice Forest District?*
- *What are your priorities for range management in the Morice Forest District?*

Range Management

There is a high demand for Crown range grazing by domestic livestock in areas adjacent to private ranch properties. In these areas ranching makes an important contribution to individual incomes and the local economy. The success of the local ranching industry depends on the protection and management of quality Crown range lands.

Important Crown range lands are also subject to high demands for private sale and development, wildlife habitat, timber production and recreational uses. Integrating livestock grazing with other resource uses and implementing appropriate range improvement projects on key range areas are the primary issues for the range management program.

Current priorities for the Morice Forest District range program include:

- the retention of Crown ownership and management of important grazing lands
- the improvement of forage quality and quantity on key range areas
- the re-vegetation of disturbed forest lands (e.g. roadsides and landings) for erosion and weed control, grazing and aesthetic values
- the retention of selected areas of forest land in continuous forage production as managed pastures
- the utilization of livestock for vegetation control on selected forest sites.

Timber Supply Management

Timber supply, and the forest industry it supports, are dominant factors in the economy of Houston and the Morice Forest District. As demands on the forest land base have grown, improving the timber productivity of available lands and increasing the economic value and employment generated by the timber have become critical issues.

The Morice timber supply consists of pine, balsam and spruce stands. A very large proportion of these stands are overmature and subject to heavy losses from insects, disease and windthrow. The development of protection programs and setting of harvest priorities to reduce these losses are important issues.

While the demand for timber in the Morice Forest District varies with market conditions, it generally exceeds the current annual harvest of two million cubic metres per year. The main demand is from the two large sawmills located in Houston. Several small sawmills throughout the District provide a much smaller and more variable demand, and there is also a demand to supply mills located outside the Morice District. Since there is not a pulp mill or whole log chipper in the Morice area, wood residue and pulp logs are currently transported out of the District or are not utilized.

Recognizing the increased demands on forest land, the ability to maintain or expand timber production will depend on increasing the usable volume of timber harvested per hectare.

Please consider the following questions.

- *Considering th potential costs to other resource values (biodiversity, landscapes, etc.), to what extent should timber production be emphasized on the productive forest land base?*
- *Would you favour the development of new timber processing plants in the Morice Forest District? If so, what type of facility(s) would you like to see?*
- *Considering the possible impacts on taxes or other government programs (e.g. health care, schools), to what extent do you favour additional government spending on silviculture programs to increase timber production in the Morice Forest District?*

Please consider the following questions.

- *In comparison to other management values , how would you rank recreation management in the Morice Forest District?*
- *What are your priorities for forest recreation management in the Morice Forest District?*

Recreation Management

Through its recreation program, the Forest Service is responsible for forest recreation, landscape and wilderness management on Crown forest lands. The program strives to provide and manage a full range of forest recreation opportunities. The integration of recreation use and developments with other resource uses is an important issue. Special issues pertaining to landscape and wilderness management have been dealt with in earlier sections of this report.

Numerous lakes and streams provide recreational opportunities around the Morice Forest District. There are twenty-three developed, road-accessible, recreation sites and numerous other sites which attract recreational users. In addition, the Forest Service manages the Nanika-Kidprice canoe portage route and a network of approximately forty kilometres of cross country ski trail near Silverthorne Lake. The Forest Service presently spends about $40,000 per year on recreation management.

Current priorities for the Morice Forest District recreation program include:

- the inspection and improvement of existing recreation sites and trails to meet minimum standards for safety and facilities
- the development of accessible recreation opportunities for the physically challenged in cooperation with other community organizations
- the provision of a wider range of recreation opportunities through the development of managed hiking trails and boat-accessible camping sites.

These new developments and improvements will require careful planning and integration with other resource users.

Resource Management Options

This section outlines a range of management directions for the Morice Forest District representing varying commitments of provincial forest land to timber and other uses.

Opportunities for enhancing timber production through improved utilization and silviculture are also presented for each option.

Each management option is described in terms of its goals, its effect on the available timber production land base, and an estimate of its long term sustainable annual timber production. The long term sustainable annual timber production estimates how much usable timber the land base will produce under a given set of management assumptions (e.g. silviculture treatments, wood utilization standards). The options also provide different levels of other resource values, such as biodiversity and landscapes. These are described in general terms since measurable objectives and outputs are not available.

For each option, a set of standard land base "net downs" is applied to define the net land base available for timber production. Starting with the total District area, non-forested areas (e.g. swamps, alpine) and private or leased lands are deleted to define the "productive Crown forest" area. Net downs are then tabulated for environmentally sensitive areas (ESAs), unstocked logged or burned areas (NSR), and for physical and economic constraints to timber management. Most of the unstocked NSR area is added back into the land base since this area is being planted under current silvicultural programs. These net downs define the "net productive forest land base" which is potentially available for timber production. In the Morice Forest District, this "net productive" area is just less than half of the total District area.

For Options Two and Three, additional net downs are applied for large natural areas and for smaller dispersed areas related to the protection of special features and the conservation of biodiversity and landscape values. In addition, more sensitive timber management practices, such as partial cutting and longer rotations, are proposed for some areas. While these practices do not "net down" the area available for timber production, they do reduce the timber productivity on areas where they are applied. The effects of these practices are estimated by percentage reductions to the long term sustainable

As you review these management options, please keep the discussion of management issues in mind and consider the following questions.

- *Do any of these options more or less describe the way you would like to see the Morice Forest District managed?*
- *Can you offer any other options or suggestions to improve forest management in the Morice District?*

Land Base Net Downs

Total District Area
- Non-Productive/ Non-Crown Lands

Productive Crown Forest Land
- ES Areas
- Unstocked (NSR)
- Physical/Economic Constraints
+ Restocked NSR

Net Productive Forest Land Base
- Natural Areas
- Habitat/Landscape/ Recreation Areas

Net Forest Land Base for Timber Production

annual timber production for Options Two and Three.

It should be noted that the current approved annual timber harvest (allowable annual cut, or AAC), is two million cubic metres, and that all of the options indicate some reduction to this harvest level over the long term ("falldown"). To enable the comparison of management options, the land base net downs and estimates of long term sustainable annual timber production for all options are tabulated in the Summary section at the end of this report.

1981 Plan

The current management guidelines for the Morice Forest District date from 1981. The management assumptions established at that time (such as the net land base available, timber utilization, silviculture treatments and timber losses to fires, insects and disease) are no longer appropriate. They are presented only as a baseline for comparing the management options presented in this report.

The net land base for timber production in the 1981 Plan was 694 056 hectares and the long term sustainable annual timber production was 1.44 million cubic metres per year.

Option One - Timber Profile Option

This option emphasizes timber production. Integrated management principles are applied through environmentally sensitive area (ESA) net downs, the referral of development plans to the provincial Environment and federal Fisheries agencies, harvest scheduling and design, and through Local Resource Use Plans. Reductions are made to the productive Crown forest land in consideration of physical and economic constraints to harvesting as well as for mapped ESAs. Over the long run, however, it is assumed that all of the remaining net land base will be developed and available for multiple use timber production.

Under this option, the Net Land Base of 724 710 hectares is about 4% larger than the 1981 Plan. Much of this increase is due to the inclusion of regenerated forest land that was previously classified as not sufficiently restocked (NSR). The long term sustainable annual timber production is approximately 1.73 million cubic metres per year, or 20% higher than the 1981 Plan. This increase in annual tree growth, or productivity, is due to the effects of the higher level of silviculture treatment currently being practised in the District than was assumed in the 1981 Plan.

Option Two - Intermediate Option

This option would make a substantial commitment to manage for the full range of forest resources. Land base commitments and the application of sensitive timber management practices on other areas would be made to conserve biodiversity, landscape and tourism values. These commitments would reduce the land base available for timber production as well as the long term sustainable annual timber production.

Under this option, a minimum of 75 000 hectares, or 5% of the total District land base, would be managed as large natural areas. Since the prime candidates for natural areas described under resource issues have relatively low harvestable timber volumes, the target of 75 000 hectares total area could be achieved with a 2% (or lower reduction) to the net (productive forest) land base.

A further 4% reduction of the net land base would be made to reserve smaller, dispersed areas for the protection of important habitat, biodiversity, landscape, tourism and recreation features. These reductions would be in addition to the normal physical, economic and ESA reductions.

In addition to the land base net downs, sensitive timber management practices such as partial cutting and longer rotations would be applied to conserve biodiversity and other resources in some high value areas. It is assumed that these practices will result in an additional 4% reduction to the long term sustainable annual timber production.

Compared to Option One, the net land base has been reduced by 2% for natural areas, and by 4% for smaller, dispersed reserves for biodiversity and other values. In addition to the land base reductions, a further 4% reduction to the long term sustainable annual timber production has been applied to allow for the application of sensitive timber management practices.

Overall, these reductions result in an estimated 10% reduction in long term timber availability compared to Option One. Under Option Two, the long term sustainable annual timber production has been estimated at 1.56 million cubic metres per year.

Option Three - Conservation Option

This option represents a large shift in management direction towards the full range of forest resources. A large portion of the Morice land base would be dedicated to natural area management and a major commitment made to sensitive timber management practices. These commitments would lead to a substantial reduction in the land base available for timber production and to the long term sustainable annual timber production.

Under this option, a minimum of 200 000 hectares, or 12% of the total District land base, would be managed as natural areas. Since the prime candidate natural areas have relatively

Compared to Option One, the net land base has been reduced by 4% for natural areas, and by 8% for smaller, dispersed reserves for biodiversity and other values. In addition to the land base reductions, a further 8% reduction to the long term sustainable annual timber production has been applied to allow for the application of sensitive timber management practices.

Overall, these reductions result in an estimated 20% reduction in long term timber availability compared to Option One. Under Option Three, the long term sustainable annual timber production has been estimated at 1.38 million cubic metres per year.

low harvestable timber volumes, this could be achieved with a 4% or lower reduction to the current net land base. A further 8% reduction to the net land base would be made to allow for protection of important habitat, biodiversity, landscape, tourism and recreation features across the rest of the District. These reductions would be in addition to the standard physical, economic and ESA reductions.

In addition to the land base net downs, sensitive timber management practices such as partial cutting and longer rotations would be applied to conserve biodiversity and other resources in some high value areas. It is assumed that these practices will result in an 8% additional reduction in the long term sustainable annual timber production.

For each of the three management options presented it is possible to increase the timber volume, value and employment generated from the available land base by undertaking enhanced silviculture and improving timber utilization.

As a conservative estimate, an enhanced silviculture program should produce a 10% increase in the Morice District's long term sustainable annual timber production. Under Option One assumptions, the long term sustainable annual timber production may increase from 1.73 million cubic metres to about 1.90 million. Under Option Two from 1.56 to 1.72, and under Option Three from about 1.38 to 1.52 million cubic metres per year.

Enhanced Silviculture Opportunity

Enhanced silviculture practices offer the best means of maintaining or improving the long term timber harvest in the Morice Forest District. On prime areas established for "farming trees", enhanced silviculture would involve controlled density planting with high quality stock, followed by brushing, spacing, fertilization and commercial thinning. The scale of such a silviculture option would be subject to the determination of suitable land areas and funding.

Basic silviculture, or the establishment of stands meeting minimum standards, is now required by law. Forest companies and the government currently spend approximately $9 million per year on basic silviculture in the Morice District.

Enhanced silviculture involves treatments beyond those required by law. Thinning dense stands, fertilization and rehabilitation on old, unstocked lands are examples of enhanced silviculture. The government currently spends approximately $1.4 million per year on enhanced silviculture in the Morice Forest District. To achieve the proposed 10% increase in long term sustainable annual timber production it is estimated that spending would have to increase to $5.5 million per year.

Enhanced silviculture could help to offset the indicated falldown in harvest levels, and/or the timber production impacts of commitments to the full range of forest resources such as outlined in Options Two and Three. The employment generated by enhanced levels of silviculture could help to offset the impacts of technological change and/or reduced employment due to lower harvest rates. In the long term, an enhanced silviculture program could improve both the timber volume and quality yield from forest stands. Silviculture can also enhance the landscape, habitat and other values of the forest.

Enhanced Utilization Opportunity

Increasing timber utilization could offset the timber supply impacts of committing a portion of the land base to the conservation of the full range of forest resources.

Silviculture activities affect the medium and long term timber supply. In the short term, it is possible to achieve additional benefits from the current timber harvest by improving the level of timber utilization. The development of chipping and possibly fibre manufacturing facilities within the Morice District, or nearby, would improve the volume and value recovered from the forest and provide additional jobs in the region. The production of value-added solid wood products (such as doors, mouldings, window frames, etc.) could provide similar economic and employment benefits. Commercial thinning and the harvesting of small wood stands offer further opportunities to recover timber which is currently not used.

Other Enhancement Opportunities

Please consider the following questions.

- *Do you think that additional forest recreation development (and additional government spending) is needed in the Morice Forest District?*
- *Do you think that additional range improvement work (and additional government spending) is needed in the Morice Forest District?*

Forest recreation and range management could be enhanced through increased program spending. For the recreation program, additional funding could be used to improve the facilities and maintenance on existing sites or to develop new sites and trails. Additional funding in the range program could be used to improve forage and its utilization. Alternatively, other priorities identified through public input on the management options could be addressed.

Summary

Three management options were presented. Option One follows traditional management assumptions and concentrates on timber production. Option Two explores an intermediate commitment to the full range of forest values, while Option Three looks at a very substantial commitment to the full range of forest values. Opportunities to increase the short and long term value and employment generated from the District's forests through enhanced silviculture and utilization were also identified.

The management options presented here are intended to outline possible management directions for the Morice Forest District and to encourage wide public discussion and comment. Once a broad management direction has been determined for the District, a more detailed planning process will be conducted to evaluate the various ways of achieving the management objectives.

The forest industry is the primary economic force in the Morice District. Forestry generates just over one thousand direct jobs in logging, milling and forest management, plus numerous indirect jobs in service industries such as heavy equipment sales and service. Each year the Province collects approximately $25 million from stumpage in the Morice Forest District. The total economic value generated from the annual timber harvest in the Morice Forest District has been estimated at about $400 million per year. Each 1% change in timber availability can be very roughly equated to 10 jobs, one quarter million dollars in annual stumpage revenue, and about $4 million in total economic activity. These figures can provide perspective when evaluating the management options; unfortunately there are no comparable measures for the other forest values in the Morice District.

The choice of an option which reduces the available timber-producing land base will inevitably lead to a reduction in potential forest income and employment. On the other hand, such an option may provide greater potential for development in the tourism sector. Though it is difficult to estimate the employment and economic implications of each management option, the potential effects should be considered.

The table on the following page compares the three management options and the potential effects of an enhanced silviculture program.

Land Base Net Downs (in hectares)

	1981 Plan	Option 1	Option 2	Option 3
Total District Area	1 499 242	1 499 242	1 499 242	1 499 242
- Non-Productive/Non-Crown	- 505 121	- 505 121	- 505 121	- 505 121
Productive Crown Forest Land	994 121	994 121	994 121	994 121
- Environmentally Sensitive Areas	- 112 534	- 108 115	- 108 115	- 108 115
- Physical and Economic Constraints	- 187 531	- 211 459	- 211 459	- 211 459
+ Restocked NSR	+ 0	+ 50 163	+ 50 163	+ 50 163
Net Productive Forest Land Base	694 056	724 710	724 710	724 710
- Natural Areas (2% Option 2, 4% Option 3)			- 14 494	- 28 988
- Habitat/Landscape/Recreation Areas (4% Option 2, 8% Option 3)			- 28 988	- 57 977
Net Forest Land Base for Timber Production			681 228	637 745
% Total Land Base	46	48	45	43
Long Term Sustainable Annual Timber Production (million m³)				
with basic silviculture	1.44	1.73	1.56	1.38
with enhanced silviculture		1.90	1.72	1.52

Public Involvement

This report has been published to encourage public involvement in deciding future management directions for the Morice Forest District. More detailed information is provided in a technical supplement available from the Morice Forest District. In January 1991 a public meeting will be held to review this material and encourage further public discussion of the proposed options. You are also encouraged to contact the Morice Forest District if you have any questions.

Crown forest lands are a public resource. The Forest Service encourages your help in deciding how these resources should be managed. Following the public meeting, the Chief Forester will review all input and decide on a management direction for the Morice Forest District. A draft Resource Management Plan will then be prepared to outline the management programs and actions required to carry out the selected management direction.

Further public involvement will be encouraged during the preparation of the Resource Management Plan.

Your opinions count. Please send your written comments to the District Manager by February 15th, 1991.

Morice Forest District
Bag 2000
Houston, B.C.
V0J 1Z0
Tel: 845-6200